

Title (en)
TEMPERATURE/TIME LIMIT INDICATOR.

Title (de)
TEMPERATUR/ZEITGRENZ-ANZEIGER.

Title (fr)
INDICATEUR TEMPERATURE/LIMITE DE TEMPS.

Publication
EP 0130997 A4 19861201 (EN)

Application
EP 83903867 A 19831103

Priority
US 43961582 A 19821105

Abstract (en)
[origin: WO8401826A1] An elongated container (13), open at end, is nearly filled with frozen fluid (14). This fluid filled container (13) can be used in association with other elements to satisfy a need for a simple way of giving indication of time and magnitude of temperature above which freezing fluid (14) has been. Urethane foam insulation (15) around the container (13) admits access only to the open end of the container with the frozen fluid level (14) below the insulation (15). An elongated heat conducting indicator member (14) fits loosely within the container (13) so that fluid may pass therebetween. An elastic band (12) over the end of the indicator/conductor (11) and around the base of the insulation (15) maintains an end of the indicator/conductor in contact with the frozen fluid (19). The indicator/conductor (11) is calibrated in degree-hours or other temperature-time units. The indicator/conductor (11) may be a hollow flat-bottomed tube with air inside acting as the heat conductor from the exterior air to the contact end of the block of frozen fluid (14). An alternate indicator/conductor (11) may be a thin heat conducting member (30) surrounded by insulation (15) and contacting a heat receptor (33) at the outside end and a heat transmitter (34) at the inside end contacting the frozen fluid (14), both of which are broader than the thin conducting member (30).

IPC 1-7
G01K 3/04; G01K 11/08

IPC 8 full level
G01K 3/02 (2006.01); **G01K 3/04** (2006.01); **G01K 11/06** (2006.01); **G01K 11/08** (2006.01)

CPC (source: EP US)
G01K 3/04 (2013.01 - EP US); **G01K 11/08** (2013.01 - EP US)

Citation (search report)

- No relevant documents have been disclosed.
- No relevant documents have been disclosed.

Designated contracting state (EPC)
AT BE CH DE FR GB LI LU NL SE

DOCDB simple family (publication)
WO 8401826 A1 19840510; AU 2340684 A 19841204; EP 0130997 A1 19850116; EP 0130997 A4 19861201; FI 842715 A0 19840705; FI 842715 A 19840705; JP S60500460 A 19850404; NO 842706 L 19840704; US 4509449 A 19850409

DOCDB simple family (application)
US 8301742 W 19831103; AU 2340684 A 19831103; EP 83903867 A 19831103; FI 842715 A 19840705; JP 50001083 A 19831103; NO 842706 A 19840704; US 43961582 A 19821105